VARIANCE (VA03-009)

Use of ASME Section VIII, Division 1, Part UHX

The Standard of Tubular Exchanger Manufacturer Association (TEMA) is one of the codes and standards declared in force in Section 5(1) of the Design, Construction and Installation of Boilers and Pressure Vessels Regulations (AR 227/1975 with amendments up to and including AR 158/2002). The 2003 Addenda to ASME Code Section VIII, Division 1 has been released with a new part UHX for the design and construction of tubular exchangers.

Effective immediately, tubular heat exchangers may be designed and constructed to Part UHX of the ASME Code Section VIII, Division 1 and be accepted for use in Alberta in place of design and construction to TEMA. Accordingly, until and unless varied or specifically superseded by regulation or another directive, a tubular heat exchanger may be designed and constructed to TEMA or ASME and be accepted for use in Alberta.

Background

Part UHX has been introduced in the Addenda of ASME Section VIII, Division 1 for the design and construction of tubular heat exchanger. There are significant differences between Part UHX and TEMA with respect to the tubesheet designs. As a result, tubular heat exchangers designed and constructed to Part UHX of ASME Section VIII, Division 1 may not necessarily meet all the requirements of TEMA standard and vice versa. For use in Alberta, tubular exchangers may be designed and constructed to either of these two standards.

It should be noted that for ASME code stamped equipment, adherence to Part UHX will be mandatory as of January 1, 2004. ASME Code Case 2429 allows the application of ASME Code Stamp to heat exchanger with tubesheets designed and constructed to TEMA instead of Part UHX. This Code Case will expire January 1, 2005. Future design and construction of tubular heat exchangers to TEMA standard may need to review implications relative to ASME code stamping if ASME code stamping is part of the requirements for fabrication.

<Original signed by>

K. T. Lau, Ph.D., P.Eng.
Chief Inspector and Administrator
Pressure Equipment
Province of Alberta